

Remarks

Independent claims 1, 10, and 11 have been amended to more particularly point out the invention. Continued examination of this application is respectfully requested.

Each independent claim has been amended to specifically recite that each rule-based engine includes a non-application specific, configurable, system that processes input data to produce output data where the processing is dictated by a set of configurable rules.

The prior art fails to suggest the invention as recited in the amended claims. All previous grounds of rejection were based on a prior interpretation of the claims made by the Examiner. The amended claims more clearly point out the invention, and recite specific limitations that were not previously considered by the Examiner. Applicants believe that the prior art fails to suggest the specific combinations now recited in the amended claims.

Claims 1-19 are pending in this application. The Examiner has rejected claims 1, 10, and 11 under 35 U.S.C. § 102(b) as being anticipated by Benyacar et al. The Examiner has rejected claims 1-4, 6-14, and 16-19 under 35 U.S.C. § 102(e) as being anticipated Jagadish et al. The Examiner has rejected claims 5 and 15 under 35 U.S.C. § 103(a) as being obvious over Jagadish et al.

Applicants' invention relates to a method for managing information and rendering discounts in a billing system. Page 1, ll. 4-5. Customer bills are often adjusted by various discounts. In an existing method for rendering discounts, a complex application specific software package is developed to render discounts in a particular billing system having a highly defined structure. Page 1, ll. 13-15. The application specific software package is tailored to meet the needs of a single company for which the software package is developed. As such, in an existing method for rendering discounts, it is not feasible to change the way in which discounts are rendered very often because the software package is so application specific that it is sometimes necessary to develop an entire new application specific software package in order to revise the discount rendering technique. Page 1, ll. 13-24.

Applicants have recognized the problems associated with these existing complex application specific software packages developed for rendering discounts in billing systems. Applicants' claimed invention provides an improved method for managing information and rendering discounts in a billing system that utilizes a rule based engine configured to accumulate data and render discounts. Each independent claim has been amended to specifically recite that each rule-based engine includes a non-application specific, configurable, system that processes input data to produce output data where the processing is dictated by a set of configurable rules.

Regarding Benyacar (U.S. Patent No. 5,003,584), this patent describes a method and apparatus for the billing of value added communication calls. The described method provides a sponsor realtime access to rate tables to specify call billing parameters needed to rate calls made to a sponsor number (such as a 900 number). A billing number is determined and validated and used to identify the party to receive a billing record for the call. A separate billing record is created for each call to the sponsor's number which includes a sponsor specified charge as determined using the call billing parameters. As explained in col. 10, ll. 44-59, the caller's and the sponsor's bills are generated from the AMA billing record in a well-known manner (ll. 43-45). That is, although Benyacar mentions an AMA billing record and a telephone bill, there is no description or suggestion of the specific discount rendering method recited by independent claim 1. Applicants' claim a specific method for managing information and rendering discounts in a billing system comprising, among other steps, processing the customer record with a rule based accumulation engine to accumulate data in a plurality of target accumulators and processing the target accumulators with a rule based discount engine to render discounts applicable to the customer. The claimed invention utilizes two different rule based engines (accumulation engine and discount engine) to manage information and render discounts in a billing system. Benyacar mentions billing records, but fails to describe or suggest the method recited by independent claim 1. Note that claim 1 has been amended to specifically recite that each rule-based engine includes a non-application specific, configurable, system that processes input data to produce output data where the processing is dictated by a set of configurable rules.

Regarding Jagadish (U.S. Patent No. 5,915,006), Jagadish describes telephone aggregated billing. This patent does describe a method and system in which calls made on two or more phone lines of a customer are aggregated for billing and discount billing plans to which the customer subscribes are applied to the aggregated phone usage of the customer. In col. 4, ll. 35-49, Jagadish mentions applying customer specific parameters to a call, and using automatic number identification (ANI) to determine the identity of the party who initiated the call. However, applicants point out that independent claim 1 recites a specific method for managing information and rendering discounts in a billing system that is not described or suggested by Jagadish. Note that claim 1 has been amended to specifically recite that each rule-based engine includes a non-application specific, configurable, system that processes input data to produce output data where the processing is dictated by a set of configurable rules.

In applying both of the applied references, the Examiner had pointed out general teachings of processing billing records and rendering discounts. However, both of the relied upon references fail to specifically describe or suggest the claimed invention as recited in independent claim 1 as now amended.

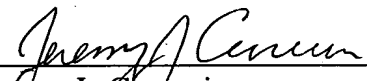
Claim 10 is an independent claim reciting a discount system for managing information and rendering discounts in a billing system. The discount system comprises a rule based engine configured to receive a customer record including data, process the record to accumulate the data in a plurality of predetermined target accumulators, processed the plurality of target accumulators to render discounts applicable to the customer.

As explained above with respect to claim 1, the relied upon references fail to describe or suggest a rule based engine in a discount system for managing information and rendering discounts in a billing system. As such, independent claim 10 as now amended is also believed to be patentable. Independent claim 11 recites a computer readable storage medium and is believed to be patentable for similar reasons as those given above with respect to claim 1. Claims 2-9 and 12-19 are dependent claims and are also believed to be patentable.

Respectfully submitted,

Chase A. Hafner

By



Jeremy J. Curcuri

Reg. No. 42,454

Attorney for Applicant

Date: 11/8/04

BROOKS KUSHMAN P.C.
1000 Town Center, 22nd Floor
Southfield, MI 48075-1238
Phone: 248-358-4400
Fax: 248-358-3351